

USSR/Chemistry - Plastics

Aug 52

"The Effect of Strain on the Vitrification Temperature of Polymers," E. I. Barg, N. N. Mel'teva, and D. M. Spitkovskiy, Inst of High-Mol Compds Acad Sci USSR

"DAN SSSR" Vol 85, No 5, pp 1061-1064

The vitrification temp (the temp at which vitrified plastic becomes viscoelastic) of polystyrene, polyvinyl acetate, and polyvinyl butyral was studied with respect to its change at varying loads of strain. It was found that there is a linear relationship bet the vitrification temp and the strain. Submitted by Acad A. F. Ioffe 16 May 52.

239T20

BARG, E.I.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
General and Physical Chemistry

Structure of polyvinyl alcohol. E. I. Barg and M. N. Mel'teva. *Doklady Akad. Nauk SSSR* 92, 307-10 (1953).—Examn. of the rate of deformation at const. load at various temps. of specimens of polyvinyl alc. (I) formulated with 10% glycerol, polyvinyl acetate, polyvinyl butyral, polystyrene, and pure I indicates that the mech. behavior of I can be explained most simply on the assumption that in I, along with the fundamentally amorphous structure, there exist small areas of cryst. phase, m. 110-50°, that depend on temp. and the temporal conditions of stretching force. I obtained by acidic and alk. hydrolysis of polyvinyl acetate was also examd. After an initial straight-line relation between rate of deformation and temp., there occurs at about 60° (T_g for this polymer) a zigzag curve which indicates alternating acceleration and retardation of stretch, and only at 100-20° does the curve become again substantially straight and very steep. In relaxation of deformation I differs from amorphous polymers in that it has residual deformation of nearly 60%, whereas the amorphous polymers had zero residual deformation. This residue remained even after heating to 150-60°, i.e. near destruction temp.

G. M. Kosolapoff

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 77C - X

BOOK

Call No.: AF654374

Author: BARG, E. I.

Full Title: TECHNOLOGY OF SYNTHETIC PLASTICS

Transliterated Title: Tekhnologiya sinteticheskikh plasti-
cheskikh mass

PUBLISHING DATA

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Publishing House: State Scientific and Technical Publishing
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Chapter XIII is written by A. A. Vasil'yev, Kand. Chem. Sci.

PURPOSE AND EVALUATION: This book is intended as a manual for
engineers and technicians in the plastics industry and allied
fields. It can also serve as a textbook for students in
schools of advanced chemical and technical studies. The book
is interesting because it is based on the work of Soviet
scientists. The newest investigations and inventions in the
field of synthetic plastics in the USSR are discussed, and the
names of the scientists are given.

1/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

TEXT DATA

Coverage: The book deals with the chemistry and technology of synthetic plastics. It contains detailed characteristics of raw materials and descriptions of methods used for obtaining them. Processing techniques, equipment and flow sheets are discussed, as well as the uses of various plastics and resins. Types and mechanisms of polymerization are discussed, and the relationship between the various properties and the physical and chemical structure of plastics and resins is presented.

Table of Contents (Annotated)

Pages

Foreword

9-10

The instructions of the 19th Party Congress provide for the industrial development of plastics and synthetic materials as substitutes for nonferrous metals in the Five-Year-Plan, 1951-1955. Importance of synthetic plastics.

Introduction

11-25

Historical outline. Many Russian scientists as well as their inventions and achievements in the field of plastics are mentioned (For Soviet scientists see p. 16). S. N. Ushakov, who worked out

2/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

new techniques and materials in the field of vinyl plastics, cellulose derivatives, phenolic plastics, etc.; G. S. Petrov, who invented carbolite, the first synthetic plastic, in 1912, investigated the field of phenolic plastics and polycondensation resins; K. A. Andrianov, who studied organic silicon compounds; S. S. Medvedev, A. A. Vansheydt, V. V. Korshak, I. P. Losev, B. N. Rutovskiy, Z. A. Rogovin, and others, who published extensive theoretical works on the chemical structure of polymers and polymerization and on polycondensation processes; P. P. Kobeko, A. P. Aleksandrov and V. A. Kargin, who contributed to the development of the new science of the physics of polymers. Basic technical properties, advantages and defects of plastics. Use of plastics in various industries..

PART ONE - THEORETICAL PRINCIPLES OF THE TECHNOLOGY
OF PLASTICS. TERMINOLOGY AND CLASSIFICATION.

Ch. I Chemical Principles of the Technology of
Plastics

26-69

3/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

Pages

General characteristic of resins. Formation of synthetic resins by polymerization and polycondensation. Stepwise polymerization. A. M. Butlerov (p. 31). Chain polymerization. N. N. Semenov's theory of kinetic chain reactions (p. 33). Radical (initiated) chain polymerization, S. S. Medvedev (p. 35), V. V. Korshak (p. 41). Studies of B. A. Dogadkin and A. L. Klebanskiy on initiators and inhibitors (p. 42). Catalytic polymerization; S. S. Medvedev's and M. F. Shostakovskiy's investigations (p. 45). Studies of copolymerization processes by V. A. Solonina (1887), I. L. Kondakov (1912), and other Russian and Soviet scientists, e.g.: I. I. Ostromyslenskiy, B. N. Rutovskiy, S. S. Medvedev, S. N. Ushakov, A. A. Vansheydt (p. 46). Studies of polycondensation processes by V. V. Korshak and S. R. Rafikov (p. 65). 2 tables, 10 diagrs.

Ch. II Physical Principles of the Technology of Plastics

70-146

Elastic and plastic deformation. Significance of the relaxation effect for low-molecular substances.

4/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

Amorphous state. B. L. Blyumberg's conceptions on the energy of amorphous and crystalline molecules (p. 84). Vitrification point and plasticity range of low-molecular resins. High-elastic deformation and its theory. S. Ye. Bresler's and Ya. I. Frenkel's arguments against the kinetic theory (p. 96). M. V. Vol'kenshteyn's theory of linear polymers (p. 97-98). The author's attainment of reversible elongations which surpass the theoretical maximum dimensions, as an evidence of the maximum flexibility of polymer chains (p. 100). Basic regularity of high-molecular deformation as a result of their relaxation property established by P. P. Kobeko, A. P. Aleksandrov, V. A. Kargin and others (p. 103). Vitrification and fragility temperatures of linear polymers. Intermolecular forces and phase structure of polymers. Special features of the crystalline state of polymers. Theoretical and technical strength of plastics. P. P. Kobeko's conceptions (p. 121). A. F. Ioffe's, A. P. Aleksandrov's, S. N. Zhurkov's theory and experiments (p. 123-125). Dependence of the technical strength of plastics on their structure.

5/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

N. V. Mikhaylov's and V. A. Kargin's studies (p. 129).
Theory of the strengthening effect of fillers on rubber-
like polymers of Acad. P. A. Rebinder and collaborators
(p. 133-134). Plasticization of polymers. Zhurkov's
investigations of the mechanism of plasticization
(p. 138-140). Barg and N. N. Mel'teva's studies of
plasticizers (p. 140). Investigations of other
Soviet scientists, e.g., Kargin, Kobeko (p. 140-141).
Mechanical plasticization (orientation of polymers).
9 tables. 59 diagrs.

Ch. III Terminology and Classification of Plastics 147-158
Soviet standard: "Classification, Terminology and Types
of Plastics" (ST 27), based on the author's
(GOKhP — 2725)

draft, approved in 1937, and according to the author,
the first standard in the world in this field. New
classification and terminology of plastics worked out
by the author and A. S. Faynshteyn, and approved in
1951 as a new All-Union State Standard: "Plastics
of Organic Origin. Classification, Specifications and
Trade Names" (GOST 5752-51), (p. 147). Explanation

6/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

of composition of names of Soviet plastic materials. Principles on which classifications of plastics are based. Classification according to GOST 5752-51, presented in abbreviated form on Table 14, p. 155-158.

PART TWO - PLASTICS BASED ON SYNTHETIC RESINS
OBTAINED BY CHAIN POLYMERIZATION

Ch. IV Polymerization Processes

159-174

Technical methods of polymerization. Activating effect of regenerating agents in radical polymerization processes, demonstrated by Ye. M. Chilina and S. S. Medvedev in 1939 (p. 167). Theory of emulsion polymerization. A. P. Yurzhenko's conceptions (p. 173). P. M. Khomikovskiy's investigations (p. 174). Table, 7 diags.

Ch. V Plastics Based on Polymers of
Unsaturated Hydrocarbons

175-230

Plastics based on polyethylene (ethylene plastics). G. G. Gustavson, first Russian scientist to obtain polymers of ethylene, 1884 (p. 175). Ye. I. Orlov's reaction and other methods for obtaining polyethylene (p. 175) and its structure, properties and use.

7/ 20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

Pages

Plastics based on polyisobutylene (isobutylene plastics). A. M. Butlerov and V. Goryainov's investigations published in 1873; S. V. Lebedev's studies of isobutylene polymerization (p. 185). Further studies of polyisobutylene, its properties, uses and treatment. Copolymers of isobutylene. Plastics based on polystyrene (styrene plastics). I. I. Ostromyslenskiy's studies of styrene polymerization (p. 194). Technical methods of obtaining styrene. Methods of Soviet scientists Yu. S. Zal'kind, I. P. Berkovich and M. K. Amusin (p. 197), A. A. Vansheydt and V. M. Zel'tser (p. 198), N. D. Zelinskiy, Yu. S. Zal'kind (p. 199). Styrene polymerization process and equipment. Copolymers of styrene. Structure and properties of polystyrene. Manufacture and types of polystyrene plastics. Applications. Porous plastics from polystyrene, their properties and use. Polymers of substituted styrenes. S. N. Ushakov's synthesis of o-, m-, and n- chloro-styrenes and studies of their polymerization and the technical properties of polymers (p. 225-226). Plastics based on polyvinyl carbazole. Structure, properties, and use of polyvinyl carbazole. 9 tables, 27 diags.

8/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

Pages

Ch. VI Plastics Based on Polymers of Halogen

Derivatives of Ethylene

231-269

Plastics based on polyvinyl chloride. I. I. Ostromyslenskiy's 1912 publications on vinyl chloride, photopolymerization, etc. Investigations by Soviet scientists P. I. Pavlovich, I. P. Losev, B. N. Rutovskiy, V. O. Sedlis, and others (p. 231). Properties, manufacture and polymerization of vinyl chloride. Structure and properties of polyvinyl chloride. Polyvinyl-chloride plastics with and without plasticizers. Perchloro-vinyl. Copolymers of vinyl chloride and their purpose. Plastics based on polyvinylidene chloride and structure. Properties, manufacture and applications of polyvinylidene-chloride copolymers. Plastics based on polyethylene tetrafluoride. Structure and properties. Manufacture and applications. Plastics based on polyethylene trifluorochloride. 2 tables, 10 diags.

Ch. VII Plastics Based on the Polymers of Vinyl

Alcohol and Its Derivatives

270-316

Polyvinyl alcohol esters. Polyvinyl acetate. Synthesis of vinyl acetate by S. N. Ushakov in collabora-

9/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

tion with Yu. M. Faynshteyn, Ye. N. Rostovskiy and I. A. Arbuzova (p. 271). Liquid-phase and vapor-phase methods of vinyl acetate manufacture. Kucherov's reaction (p. 271). Polymerization. Structure, properties, manufacture and applications of polyvinyl acetate. Copolymers of vinyl acetate. Polyvinyl formate. Liquid-phase synthesis described by Yu. S. Zal'kind (p. 286). Vapor-phase method of S. N. Ushakov, I. A. Arbuzova and Ye. N. Rostovskiy (p. 286). Polyvinyl alcohol ethers. A. M. Butlerov's, A. Ye. Favorskiy's, M. F. Shostakovskiy's, and S. N. Ushakov's reactions (p. 287-292). Copolymers of vinyl ethers. Polyvinyl alcohol, its structure and properties. Studies of its reactions and transformations by S. N. Ushakov and R. K. Gavurina, and S. N. Zhurkov (p. 299-300). Plasticization and applications of polyvinyl alcohol. Polyvinyl acetals. Manufacture. S. N. Ushakov's methods (p. 307-310). Structure and properties. Industrial polyvinyl acetals: polyvinyl formal, polyvinyl ethanal and polyvinyl butyral. 5 tables, 12 diagrs.

10/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

Ch. VIII Plastics Based on Polymers of the
Derivatives of Ethylene Carboxylic
Acids and on Esters of Unsaturated
Alcohols

317-349

Acrylic resins. Esters of acrylic and methacrylic
acids. Manufacture. Polymerization methods.
Structure of polyacrylic esters. Copolymers of
acrylic and methacrylic esters. Properties and ap-
plications of polyacrylates. Plastics based on poly-
mers of allyl esters (allyl resins). Synthesis of
allyl esters made for the first time in 1855 by the
Russian scientist N. N. Zinin. B. N. Rutovskiy's in-
vestigations (p. 342-343). 5 tables, 8 diagrs.

PART THREE - PLASTICS BASED ON SYNTHETIC RESINS OB-
TAINED BY POLYCONDENSATION AND BY STEP-
WISE POLYMERIZATION

Ch. IX Resins Obtained on the Base of Phenols and
Aldehydes (Phenol-Aldehyde Resins)

350-421

Manufacture of Novolak and resol products of con-
densation. A. A. Vansheydt's theory of the chemical
structure of Novolak resins and resols as based on
extensive experimental investigations (p. 354-356).

11/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

Phenol-formaldehyde resins. Acid condensation and formation of Novolak resins. Catalysts. Correlation of components. Effect of condensation and drying. A. D. Sokolov and I. P. Mikheyev's experiments (p. 364-367). Effect of urotropine. (G. S. Petrov's investigations, p. 369). Alkali condensation and formation of resol resins. Catalysts. Resol-barytic resins obtained by G. S. Petrov and used in the production of electrical insulating molded articles (p. 370). Correlation of the components of resol resins and effect of their chemical structure. Phases of alkali condensation, properties and applications of resols. Equipment for Novolak and resol condensation. Preparation of raw-materials. Flow diagrams of various processes. Technological process of the manufacture of Novolak resins for molding powders. Phenol and aldehyde raw materials. Description of the process. Technological process of the manufacture of hard and emulsion resol resins. Cresol-barytic resins obtained by G. S. Petrov, characterized by higher insulating properties (p. 394). Cast products of resol condensation.

12/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

Pages

Bakelites. "Carbolite" plastic developed by G. S. Petrov in 1912 (p. 396). "Noble" resins (Bakelite C). "Neoleykorite", Soviet plastic, developed by S. N. Ushakov and A. D. Sokolov (p. 398). Modified phenol-aldehyde resins for the manufacture of varnishes. Ethers and esters of Novolak resins. The technology of oil-soluble resins (Novolak and resin esters), known in the USSR as "artificial copals", was worked out by S. N. Ushakov and V. M. Zel'tser (p. 406). Alkyl-phenol or 100% phenol resins. Resins based on phenols and formaldehyde substitutes. Phenol-furfural resins. G. S. Petrov's method for obtaining thermosetting (resol) resins (p. 411). Technology of phenol-lignin and phenol-wood resins worked out in the Soviet Union on the basis of the investigations of S. N. Ushakov, Ye. N. Freydberg, I. I. Matveyev, I. P. Losev and collaborators (p. 412). Utilization of phenols from tars of low caloric value fuels. S. N. Ushakov's and G. S. Brodskiy's molding powders and laminated plastics (p. 417). Condensation of formaldehyde with polyatomic phenols.

13/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

Resorcin resins; G. S. Petrov's experiments (p.419).
The thermosetting of phenol resins. 9 tables, 30
diagrams.

Ch. X Non-Laminated Plastics Based on Phenol-Aldehyde
Resins (Phenol-Aldehyde Plastics) 422-460
Molding materials. Technical methods for obtaining mold-
ing powders (varnish, emulsion and other methods). Novolak
and resol molding powders. Rate of molding of Novolak
powders dependent on the content of urotropine. Compo-
sition of Novolak molding powders based on wood flour.
Roller and worm methods of the manufacture of molding
powders. Equipment, flow diagrams. Specifications of
molded samples. Molding powders with mineral fillers.
Molding materials based on long-fibered fillers, and
with cellulose fibers. Phenolic-textolite and phenolic-
asbestos compositions. Trademarks of Soviet asbestos
resins. Determining the viscosity of molding materials.
Faolites. 6 tables, 13 diagrams.

Ch. XI Laminated Plastics Based on Phenol-Aldehyde
Resins (Phenolic Plastics). 461-513
Resins for phenolic laminated plastics. Methods of
impregnation of fillers. Types of phenolic laminated

14/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

plastics. Textolites. Fabrics. Manufacturing methods and equipment. Study of the most favorable temperature conditions for impregnating machines by A. N. Levin (p. 469). Phenol alcohols used by A. A. Vansheydt, A. A. Vasil'yev and R. I. Gruz for the impregnation of fibrous and laminated fillers in the manufacture of laminated plastics (p. 472). Properties and applications of phenolic laminated plastics. Phenolic laminated molded resites composed of cellulose paper sheets impregnated by bakelite resins; laminated asbestos resites; phenolic asbestos compositions based on asbestos paper and bakelite resins; laminated wood plastics (DSP); bakelite plywood; laminated plastics based on glass fibers and glass fabrics. Properties of the above plastics, methods and equipment of manufacture; applications. 8 tables, 18 diagrs.

Ch. XII Plastics Based on Amino-Aldehyde Resins
Plastics based on urea-formaldehyde and melamine - formaldehyde resins (amino plastics). Structure of the above resins. A. A. Vansheydt's study of methylene urea (p. 517). V. S. Kiselev's investigations

514-550

15/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

of melamine compounds (p. 520). Methods of the manufacture of amino plastics and improvement of the process by A. A. Vansheydt and Kraus (p. 523). Vansheydt's and Z. I. Naumova's method for the manufacture of molding powders based on urea-formaldehyde resins and cellulose (p. 526). Description of the process and equipment. Properties and use of molding powders. Laminated urea-formaldehyde molding materials. Urea-formaldehyde resins for varnishes and glues (modified resins). Plastics based on melamine formaldehyde resins. V. S. Kiselev's, M. F. Sorokin's, A. A. Vansheydt's and Z. K. Naumova's investigations (p. 539). Plastics based on aniline formaldehyde resins (aniline plastics). Modern investigations of the principles of synthesis and of the structure of aniline-formaldehyde resins, in particular the studies of G. S. Petrov, A. K. Andrianov, I. P. Losev (p. 545). Methods of obtaining modified melamine resins investigated by V. S. Kiselev (p. 544). Special type of aniline resins obtained by Andrianov (p. 546). Infusible and insoluble polymers obtained by A. M. Nastyukov (p. 548). Manufacture, properties and applications of aniline-formaldehyde

16/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

resins. 2 tables, 6 diagrs.

Ch. XIII Ion-Exchange Resins

551-564

(This chapter is written by A. A. Vasil'yev). The sorption method of the separation of ions was developed by Ye. N. Gapon, B. P. Nikol'skiy, S. Ye. Bresler and others (p. 552). Cation-exchange resins. I. P. Losev's and Ye. B. Trostyanskaya's concept (p. 556). Soviet ion-exchange resins of the phenolsulfonic cation type and their manufacture (p. 556-559). Anion-exchange resins. Synthesis of the "amino resin" by F. G. Prokhorov, K. A. Yankovskiy and F. A. Kutkin in 1938 (p. 561). Soviet brands of anion-exchange resins. Synthesis of ion-exchange resins of selective effect by A. S. Smirnov, V. A. Klyachko and others (p. 562). Latest investigations in the field of synthesis of A. B. Davankov (p. 562-563). Applications of ion-exchange resins. 1 table.

Ch. XIV Plastics Based on Polyesters, Polyamides, Polyurethans and Polyurea

565-610

Ester and amide plastics. Basic courses of the reactions of formation of polyester and polyamide resins. A. I. Kogan's, V. V. Korshak's and S. R. Rafikov's studies of the polycondensation process (p. 566-568).

17/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X
Pages

A. Ya. Drinberg's concept of the "molecular function", and his determination of the kinetics of the polycondensation process and of the characteristics of polymers (p. 574-575). Varnish resins and plastics based on polyester resins. Manufacture of phthalic resins. Various types of phthalic resins. Maleic resins. Maleic anhydride used in the manufacture of varnishes. Polyesters based on linear dibasic acids. Synthesis of pentaerythritol resins developed by A. Ya. Drinberg and V. S. Kiselev (p. 588-589). Applications of polyester resins. Plastics based on synthetic polyamides (amidoplastics), work in this field of V. V. Korshak, I. L. Knunyants, Z. A. Rogovin (p. 591). Polyamides obtained by polycondensation of diamines with dicarboxylic acids. Polyamides obtained by polymerization of cyclic lactides of α -amino acids. Z. A. Rogovin's formula (p. 597). Properties and treatment of polyamides. Plastics based on polyurethans and polyurea. Properties, manufacture, applications. 5 tables, 17 diags.

18/20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

Pages

611-627

Ch. XV Plastics Based on Organosilicon Resins
Basic types of organosilicon resins. Importance of
K. A. Andrianov's work in obtaining high-molecular
organosilicon compounds, and in working out technical
methods of producing organosilicon polymers (p.612,
619). Characteristics of organosilicon compounds.
Production of initial "monomers". Processes of the
formation of organosilicon polymers, and their prop-
erties. Manufacture of plastics based on organosilicon
polymers. Manufacture of thermosetting polymers modi-
fied by organosilicon compounds according to the method
used by G. S. Petrov and A. I. Kreshkov (p. 627). 2
tables, 6 diagrs.

Bibliography

628-637

The references (with the exception of a few translated
works) are Russian. They are divided by chapters.
General: 9; Introduction: 5; Ch. I: 28; Ch.II: 44;
Ch. III: 6; Ch.IV: 14; Ch.V: 13; Ch.VI: 14; Ch.VII: 14;
Ch. VIII: 7; Chs. IX, X, XI: 31; Ch. XII: 7; Ch.XIII: 8;
Ch. XIV: 14; Ch. XV: 10.

Alphabetic Index

638-656

Index of subjects and of the names of scientists men-
tioned in the text.

19/ 20

Tekhnologiya sinteticheskikh plasticheskikh mass

AID 770 - X

No. of References: 224 Russian

Facilities: Many names of Soviet scientists are scattered through the book. See "Table of Contents".

20/20

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biological properties of Mesredk's filtrate. Zbirnl. D. okt. D. d. rip.
100:348-406, 1927

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B. RG, G. S.

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I det. orig. 108: 41-52, 1928.

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2430, C. S.

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74:372-9. 1932

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Dtshe. Trnauforsch 85:376-82. 1935 with I. C. Sadenko.

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Rabbit vaccination by cutan., intracutan. and subcutan. methods. Zh. Mikr.
18: 472-7. 1937 with V. H. Borodai.

Head, Inst. Expt. Med., Bacteriological Inst., Kiev.

BARG, I.G., inzhener; ENGEL', G.A., inzhener.

First year's operation of mechanized repair stations (RMS).

Elek.sta. 28 no.4:67-70 Ap '57.

(MLRA 10:5)

(Electric lines)

8(6)

SOV/112-59-5-8841

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 5, p 61 (USSR)

AUTHOR: Barg, I. G., and Engel', G. A.

TITLE: Experience With Mechanized Repair Stations in High-Voltage Power Networks

PERIODICAL: Naladochnyye i eksperm. raboty ORGRES, Nr 15, 1958, pp 36-42

ABSTRACT: Experience is described with using the combined method of line work in electrical networks. Experimental models of specialized machines and mechanisms were developed: line-type automobile, three-part telescopic towers, automobile boring machine with a crane, a machine for replacing parts of wooden towers, etc. Data is presented that characterizes the efficiency of such mechanized repair stations and also their economy. Ways for further developing and adopting the combined repair methods in electric networks are mapped out.

F.F.V.

Card 1/1

DOLIN, P.A.; MARG, I.G., inzh., red.; MUKHOMYANOV, N.A., tekhn. red.

[Work on operating overhead electric power transmission lines; clarifications for chapter IV of "Safety Engineering Regulations for Operating Overhead Power Transmission Lines with Voltages in Excess of 1,000 volts."] Raboty pod napriazheniem na vozdukhnykh liniyakh elektropredachi; poissneniia k glave IV "Pravil tekhniki bezopasnosti pri ekspluatatsii vozdukhnykh liniy elektropredachi napriazheniem vyche 1 000 v." Izd.2., perer. Moskva, Gosenergoizdat, 1962. 109 p.

(MIRA 15:9)

(Electric lines--Overhead)

(Electric power distribution--Safety regulations)

KHAVIN, N.Z., inzh.; BARG, I.G., inzh.

Wide use of a phase method for repairing electric power transmission lines. Elek. sta. 33 no.6:85-87 Je '62. (MIRA 15:7)
(Electric lines--Overhead)

BARG, I.G., inzh.; BELOUSOV, Yu.F., inzh.

Organization of the operation of electrical networks. Elek. sta. 36
no.6:71-80 Je '65. (MIRA 13:7)

1. Gosudarstvennyy trest po organizatsii i ratsionalizatsii rayonnykh
elektrostantsiy i setey (for Barg). 2. Volgogradenergo (for Belousov).

1. The following information was obtained from a review of the file of the subject, [redacted], dated 1/17/1963.

2. The following information was obtained from a review of the file of the subject, [redacted], dated 1/17/1963.

133-8-19/28

AUTHORS: Kulikovskiy, S.A., Kalyuzhnyy, A.N., Barg, M.M. and
Zeylikovich, B.Ya., Engineers

TITLE: Experience in the application of a protective atmosphere.
(Opyt primeneniya zashchitnoy atmosfery).

PERIODICAL: "Stal'" (Steel), ^{Vol. 17} No. 8, 1957, pp. 740-744 (USSR).

ABSTRACT: A description of equipment for annealing sheets in a protective atmosphere (muffle with a sand seal, covered by a refractory lined hood) is given (Fig.1). The protective atmosphere is obtained by combustion of producer gas (from anthracite) purified with monoethanolamine. After cooling to 25-30 C the combustion products are again purified from CO₂ with monoethanolamine and dried with aluminosilicagel and silicagel. The installation for the generation of the protective atmosphere was designed by Stal'proyekt (Figs.2 and 4). Initial difficulties encountered and methods of their elimination are described. Changes of the main indices of the protective atmosphere in the course of a satisfactory annealing (without oxidation of edges) are shown in Fig.5. It is stated that the production of clean annealed sheets without traces of oxidation permitted either to avoid or to reduce considerably the subsequent pickling process (no data given).

Card 1/2

133-8-19/28

Experience in the application of a protective atmosphere.
(Cont.)

There are 5 figures.

ASSOCIATION: Novomoskovsk Sheet Rolling Works. (Novomoskovskiy
Zhestekatal'nyy Zavod).

AVAILABLE: Library of Congress

Card 2/2

BARG, O. Ya.

124-11-13335

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 147 (USSR)

AUTHOR: Barg, O. Ya.

TITLE: The Stability of a Regular Grid Framework.
(Ustoychivost' regul'yarnogo perekrytiya.)

PERIODICAL: Prikl. mekhanika, 1956, 2. Nr 4, pp 404-408 (Ukrainian).

ABSTRACT: The paper examines the stability of grid frameworks consisting of a large number of beams in two directions, which support a deck surface. The problem is described by the deflection equation of a structurally orthotropic plate.

A fuller investigation of the subject problem was published by L. Ya. Reznitskiy (An Approximate Method for the Calculation of the Stability of Grid Frameworks with Due Consideration of the Resistance of the Beams to Torsion and the Influence of General Deflection. Tr. VNITOSS. Sudpromgiz., 1948, 5. Nr 4.)

A. A. Kudryumov

Card 1/1

Mikolayevsky sudobudovniy institut

BARG, TS. M.

Barg, Ts. M. and Verzhblovskaya, A. G. "Some data on the experimental study of biogenic stimulators," Oftalmol. zhurnal, 1949, No. 1, p. 37-39.

SO: U3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 18, 1949).

BARG, TS.M.

BOGORAZ, N.A.; BARG, TS.M.

[Productive life of Vladimir Petrovich Filatov] Trorcheskii put:
akademika Vladimira Petrovicha Filatova. Vest.khir. 70 no.1:3-7
'50. (GIML 19:1)

1. Of the Ukrainian Experimental Institute for Eye Diseases imeni
Academician Filatov, 49-51 Proletarskiy Boulevard, Odessa.

B. AK, Ts. M.

EXCERPTA MEDICA Sec.12 Vol.12/4 Ophthalmology April 58

572. TREATMENT OF BURNS OF THE EYE (Russian text) - Barg Ts. M.
- TRUD. TURKMEN. TRAKH. INST. 1956, 4 (123-126)
In 29 cases of 3rd degree eye burns the following treatment was used by the author:
During the first 24 hr. 30% albucid ointment was applied in the conjunctival sac,
after thorough and copious bathing with warm physiological saline every 1-2 hr.
at first and later less frequently. From the 1st day on 'dionin' was administered,
beginning with a 6% solution, the concentration of the solution being increased on
the succeeding days until the drug was applied as a powder. Warmth procedures
were also ordered - bed-warmers and bathing of the conjunctival sac with warm
physiological saline. I. v. infusions of a 10% solution of sodium chloride have a
beneficial effect. After the acute manifestations have subsided, tissue therapy is
indicated in the form of hypodermic injections of an autoclaved extract of aloe
leaves, preserved in the dark; the daily dose is 1 ml. Acuity of vision before
treatment was limited in the majority to perception of light only; only in a few
cases was it 0.02-0.05. On conclusion of treatment the visual acuity was 0.05 in
one case, 0.1 in 3 cases and 0.2-1.0 in the remainder. Two case histories are
presented. (S)

PUCHKOVSKAYA, N.A., doktor meditsinskikh nauk, redaktor; DEYNEKA, I.Ya., professor, redaktor; ~~BARG, TS.~~ M., starshyy nauchnyy sotrudnik, redaktor; BARKHASH, S.A., starshyy nauchnyy sotrudnik, redaktor; BUSHMICH, D.G., starshyy nauchnyy sotrudnik, redaktor; VOYNO-YASENETKIY, V.V., kandidat meditsinskikh nauk, redaktor; DANCHEVA, L.D., kandidat meditsinskikh nauk, redaktor; DEYNEKA, I. Ya., professor, redaktor; KURYSHKIN, P.M., starshyy nauchnyy sotrudnik, redaktor; MUCHNIK, S.R., doktor meditsinskikh nauk, redaktor; PUCHKOVSKAYA, N.A., doktor meditsinskikh nauk, redaktor; RUKIN, V.A., starshyy nauchnyy sotrudnik, redaktor; SYSOYEV, A.F., starshyy nauchnyy sotrudnik, redaktor

[Proceedings of the jubilee conference of the Ukrainian Filatov Experimental Institute of Eye Diseases and the Odessa Pirogov Medical Institute, held on May 25-28, 1955, and dedicated to the 80th birthday of Professor Vladimir Petrovich Filatov, Hero of Socialist Labor, Stalin Prize winner, active member of the Academy of Sciences of the U.S.S.R. and the Academy of Medical Sciences of the U.S.S.R., and Honored Scientist] Trudy iubileinoi nauchnoi konferentsii Ukrainetskogo eksperimental'nogo instituta glaznykh boleznei im. akad. V.P. Filatova i Odesskogo meditsinskogo instituta im. N.I. Pirogova, posviashchennoi 80-letiiu so dnia rozhdeniia Geroia Sotsialisticheskogo Truda, laureata Stalinskoi premii, deistvitel'nogo chlena Akademii nauk USSR i Akademii meditsinskikh nauk SSSR, zasluzhennogo delatel'ia nauki, professora Vladimira Petrovicha Filatova, 25-28 maia 1955 g. Kiev, Gos. med. izd-vo USSR, 1956. 302 p.

1. Ukraine. Ministerstvo zdavookhraneniya. (MLRA 10;4)
(EYE--DISEASES)

BARG, TS.M.; KARPOVA, Ye.P.

Effect of injections of mercury preparations on the biological
activity of the blood. Uch.zap. UEIGB 5:263-267 '62
(MIRA 16:11)

X

BARG, Ya.A. (Khar'kov)

Stability of thin rectangular plates [with summary in English].
Prykl.mekh. 5 no.1:83-91 '59. (MIRA 12:6)

1.Kharkivs'kiy zavod teplovoznogo elektrostatkuvannya.
(Elastic plates and shells)

BARG, Ya.A. (Khar'kov)

Stability of rectangular plates. Stroi. mekh. 1 rasch. ser. 2 no.5:
27-3/4 '60. (MIRA 13:9)

(Elastic shells and plates)

BARG, Ya.A., inzh.; KRIVOSHEYEVA, S.G., inzh.

Calculating the spring frame. Vest. elektroprom. 31 no. 6:68-69
Jo '60. (Diesel locomotives) (MIRA 13:7)

BARG, Ya. A.

Cand Tech Sci - (diss) "Estimation of plates loaded with forces transversely and lying in the mean density range." Khar'kov, 1961. 11 pp; (Ministry of Higher Education Ukrainian SSR, Khar'kov Construction Engineering Inst); 225 copies; free; (KL, 7-61 sup, 231)

BARG, Ya.A. (Khar'kov)

Vibration of compressed and stretched plates. Stroi. mekh. 1
rasch. soor. 3 no.6:22-28 '61. (MIRA 15:4)
(Elastic plates and shells--Vibration)

BARG, Ya.A., inzh.; KRIVOSHEYEVA, S.G., inzh.

Concerning the design of electric machinery beds. Vest.elektroprom.
32 no.2:29-31 F '61. (MIRA 15:5)
(Electric machinery)

BARG, Ya.A., inzh.; GEFTER, V.I., inzh.; KRIVOSHEYEVA, S.G., inzh.

Design of diaphragm drives for electrical apparatus. Vest.
elektroprom. 32 no.8:69-71 Ag 61. (MIRA 14:8)

(Electric driving) (Pneumatic driving)

BARG, Ya.A. (Khar'kov)

Some problems of the stability and vibration of rectangular
plates. Prikl.mekh. 8 no.4:446-452 '62. (MIRA 15:9)

1. Khar'kovskiy zavod tyazhelogo elektromashinostroyeniya
im. V.I. Lenina.

(Elastic plates and shells)

BARG, Ya.A. (Khar'kov)

Design of plates lying on an elastic foundation. Stroi. mekh.
i rasch. soor. 4 no.6:11-14 '62. (MIRA 16:1)
(Elastic plates and shells)

BARG, Ya.A., kand. tekhn. nauk; LIVSHITS, A.L., inzh.

Calculation of the torsional stresses of the shafts of electrical
machines. Vest. elektroprom. 34 no.3:60-63 Mr '63. (MIRA 16:8)

(Electric machinery)

BARG, Ya.A., kand.tekhn.nauk; LIVSHITS, A.L., inzh.

Calculation of the strength of the hollow conductor of the rotor
of a large turbogenerator. Elektrotehnika 35 no.4:56-57 Ap
'64. (MIRA 17:4)

1. The first part of the document is a list of references.

2. The second part of the document is a list of references.

BARG, Yakov Abramovich, kand. tekhn. nauk: inzh. nauch. rab. (for BARG),
Inzh. konstruktor

Theory of the calculation of electrostatic fields. Izv. vuz. ucheb.
zav.; elektromekh. 7 no. 19:1976-1977. '84.

(MIRA 18:2)

1. Nachal'nik sektora "VNIIE" (for BARG). P. Zaved.
Nauch.-issledovatel'skaya institut'ya nauch. elektromekhaniki
(for Lishits).

BARG, V.I., kand. tekhn. nauk; LIVSHITS, A.I., kand. tekhn. nauk;
MIRMAN, V.A., inzh.

Method for calculating the torsion of shafts with varying cross
section, Elektrotehnika, 36 no.9:58-59 S '65.
(MIRA 18.9)

L 51b88-65 EWT(d)/EWT(m)/EWP(w) EN

ACCESSION NR: AP5016617

UR/0122/64/000/012/0009/0013

AUTHOR: Barg, Ya. A. (Candidate of technical sciences); Livshits, A. L. (Engineer);
Sirenko, V. A. (Engineer)

TITLE: Torsion²⁶ calculation for prismatic shafts²⁶ of arbitrary cross section 14
B

SOURCE: Vestnik mashinostroyeniya, no. 12, 1964, 9-13

TOPIC TAGS: computer calculation, shaft

Abstract: A further development of the method proposed by two of the authors (Barg, Ya. A., Livshits, A. L., "Torsion Calculations for Shafts of Electrical Machines," Vestnik Elektromyashlennosti, No 3, 1963) on calculating shafts for torsion. The calculation of shafts with rhombic and other cross sections used in machine building (boring bars, telescopic transmissions, etc.) is done on the "Ural-2" electronic digital computer. The torsion calculation for a shaft with a simple connected cross section (i. e. one without internal cavities) consists of finding the stress function $F(x,y)$ which satisfies the Poisson equation

$$\frac{\partial^2 F}{\partial x^2} + \frac{\partial^2 F}{\partial y^2} = -2,$$

Card 1/2

L 51488-65

ACCESSION NR: AP5016617

6

and the boundary condition (for the contour) $F(x,y) = 0$.
Orig. art. has 3 figures, 17 formulas, and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, DP

NO REF SOV: 000

OTHER: 000

JPRS

Bo
Card 2/2

BARGAFTIK, N. B.

AID P - 2030

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 3/14

Authors : Bargaftik, N. B., Doc. of Tech. Sci. and
Oleshchuk, O. N., Eng.

Title : Heat content of slags of various fuels

Periodical : Teploenergetika, 4, 13-17, Ap 1955

Abstract : Results of research on heat content of solid and liquefied fuel slags at temperatures from 200 to 1,600 C^o are presented. A description of the method of research and of the experimental installation is given. The authors present equations computing the enthalpy of slags of various fuels (coal, shale) at different temperatures. Nine diagrams. Six Russian references, 1940-1953, 1 German, 1933, and 1 US, 1947 are attached.

Institution: None

Submitted : No date

SUBJECT USSR / PHYSICS CARD 1 / 2 Page 100
 AUTHOR BARGAETIK, N.B., SMIRNOVA, P.V.
 TITLE On the Dependence of the Heat Conductivity of Steam on Temperature
 PERIODICAL Zhurnal tekh. fiz. 26, Issue 6, 1251-1253 (1956)
 Issued 7 / 1956 reviewed 10 / 1956

At first several works dealing with this topic are devoted to the determination of the heat conductivity of steam by different methods for the determination of the heat conductivity of steam and for the purpose of finding the sources of errors the authors conducted experiments concerning the determination of the heat conductivity of steam by means of two different devices. The first is based on the method of coaxial cylinders (described by F. KAYES and J. SALOMON, Trans. ASME, 72, 6, 767, 1950), the other on the method of a heated wire. The method of the heated wire is based on the determination of the heat conductivity of a gas located between coaxial cylinders. The inner cylinder consists of an electrically heated thin platinum wire and serves at the same time as a resistance thermometer. On the exterior surface of the second cylinder, which consists of a quartz or glass tube, a platinum resistance thermometer is wound. The coefficient of heat conductivity is determined from the amount of heat transferred by the current to the measuring wire, from the temperature difference in the layer of the gas to be examined, and from the geometrical conditions of the device. The results obtained by the authors with the help of this method agree well with previously obtained measuring results. In the case of the method of coaxial cylinders, two coaxial cylinders (inner diameter 2.7 mm) with

Microfilm file # [redacted] Series # [redacted] (1964) CARD # 10 PA 1555

a narrow gap between them containing the substance to be investigated are used. The heating system is in the inner cylinder. The coefficient of heat conductivity is determined from the heat flux through the substance to be examined and from the difference of temperature between the exterior surface of the inner cylinder and the interior surface of the outer cylinder. Next the authors find the lack of agreement between the experimental results obtained by KEYES and SANDELL and those obtained by other authors are discussed. The main disadvantages of the apparatus developed by KEYES and SANDELL are the existence of 7 centimeter screens and the lack of a protective heating system in the lower part of the cylinder. Therefore the authors determined the heat conductivity of steam by means of a relative method. In this connection it is necessary to know the heat conductivity of a material of reference (in this case copper) well. Because, when using the apparatus, KEYES and SANDELL assumed the heat conductivity of nitrogen to be low, they also obtained low values for the heat conductivity of steam.

INSTITUTION:

ACCESSION NR: AT4017410

S/0000/63/000/000/0055/0059

AUTHOR: Sletkina, L.S.; Bargamova, M.D.; Rogovin, Z. A.

TITLE: Synthesis of new derivatives of cellulose and other polysaccharides. XXXVI.
Synthesis of a mixed acetic and hexafluoroisobutyric acid ester of cellulose

SOURCE: Tsellyuloza i yeye proizvodny*ye, sbornik statey (Cellulose and its derivatives).
Moscow, 1963, 55-59

TOPIC TAGS: polysaccharide, cellulose, cellulose ester, cellulose acetate, cellulose
hexafluoroisobutyrate, fluoridated cellulose ester

ABSTRACT: Results are given of attempts to accomplish the synthesis of this, as yet unknown, type of F-containing cellulose ester which may lead to valuable new technical materials, such as less hygroscopic and more heat-resistant oil-and water-repellent films, lacquers, etc. Bis-trifluoromethylketene, $(CF_3)_2C:C:O$, prepared at the Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Metalloorganic compounds) was explored as the esterifying agent in a series of 48-hour tests at 20 C in a heterogeneous dioxan medium, with and without a catalyst, but failed to produce yields higher than $\eta \approx 7$. A low-substituted cellulose ester was then synthesized for the first time with α -hydroperfluoroisobutyric acid, and a mixed cellulose ester was prepared with

Cord 1/2

ACCESSION NR: AT4017410

acetic and α -hydroperfluoroisobutyric acids which contains up to 20% F. Increasing the F content in the molecule to 20% markedly reduced the hygroscopic properties of the ester and of films made from it, as well as the temperature of vitrification, and increased the elasticity of these cellulose derivatives. Quantitative data are given on the hygroscopic properties, swelling and sedimentation of some cellulose esters. "The studies on the hygroscopicity and swelling of complex cellulose esters were carried out by T. Alishoyeva at NIKFI under the direction of K. K. Podgorodetskiy. The thermomechanical properties of the cellulose esters were determined in the laboratory of polymer physics of the Institute of Metalloorganic Compounds by K. A. By*chko and Ye. A. Markina. We would also like to thank I. L. Knunyants for his valuable advice." Orig. art. has: 2 tables and 1 graph.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Metallo-organic Compounds); Moskovskiy tekstil'nyy institut (Moscow Textile Institute)

SUBMITTED: 29Jun62

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: CH

NO REF SOV: 000

OTHER: 000

Card 2/2

KNUNYANTS, I.L.; CHEBURKOV, Yu.A.; BARGAMOVA, M.D.

Perfluorodemethylketene and perfluoromethacrylic acid. Report No.1:
Hexafluoroisobutyric acid halides from fluorinated ethers. Izv.AN
SSSR.Ser.khim. no.8:1389-1393 Ag '63. (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Fluorine organic compounds) (Ketene)
(Isobutyric anhydride)

KNUNYANTS, I.L.; CHEBURKOV, Yu.A.; BARGAMOVA, M.D.

Perfluorodimethylketene and perfluoromethacrylic acid. Report No.2:
Comparison of α -hydrohexafluoroisobutyric acid halides in the
reaction with triethylamine. Izv.AN SSSR.Ser.khim. no.8:1393-1397
Ag '63. (MIRA 16:9)

1. Institut elementoorganicheskikh soedineniy AN SSSR.
(Ketene) (Fluorine organic compounds) (Isobutyric anhydride)
(Triethylamine)

ACCESSION NR: AP4019016

S/0062/64/000/002/0367/0389

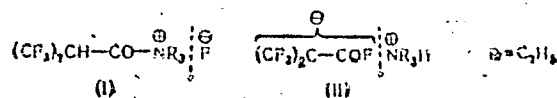
AUTHORS: Cheburkov, Yu. A.; Bargamova, M. D.; Knunyants, I. L.

TITLE: Fluoroanhydride of α -hydrohexafluoroisobutyric acid - a new system with mobile hydrogen atom

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 367-369

TOPIC TAGS: hydrohexafluoroisobutyric acid, hexafluoro pivalic acid, bromohexafluoro isobutyric acid, mobile hydrogen atom, fluoroanhydride, structural formula

ABSTRACT: This is a continuation of an earlier work by the authors (Izv. AN SSSR, Ser. khim. 1963, 1393) in which they described the remarkable properties of the above product. The purpose of the present article is to chose between two structural alternatives for it, namely:



Card 1/2

ACCESSION NR: AP4019016

After a discussion supported by reactive evidence, the authors expressed preference for the second alternative formula, although they admit the possibility of existence of structure I. Spectroscopic investigation was inconclusive. During the course of this investigation, the following products were prepared; and fluoroanhydride of hexafluoropivalic acid, ethyl ester of their characteristics described: α -bromohexafluoroisobutyric acid. Orig. art. has: 6 formulas.

ASSOCIATION: Institut elementoorganicheskikh soedineniy, AN SSSR
(Institute of Elementoorganic Compounds AN SSSR)

SUBMITTED: 19Jul63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: 00

NR REF SOV: 003

OTHER: 000

Cord

2/2

KNUNYANTS, I.L., akademik; KOCHARYAN, S.T.; CHEBURKOV, Ye.A.; BARGAMOVA, M.D.;
ROKHLIN, Ye.M.

Reversibel dehydrofluorination of 2-monohydroperfluoroisobutane
and γ -hydrohexafluoroisobutyric acid esters. Dokl. AN SSSR 165
no.4:827-830 D '65. (MIRA 18:12)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ACC NR: AF7000728 SOURCE CODE: UR/0062/66/000/006/1048/1057

KNUNYANTS, I. L., CHEBURKOV, Yu. A., BARGAMOVA, M. D., Institute of Hetero-organic Compounds, Academy of Sciences USSR (Institut elementoorganicheskikh Soedineniy AN SSSR)

"Action of Triethylamine on Hexafluoroisobutyryl Fluoride"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 6, 1966, pp 1048-1057

Abstract: Dimerization of hexafluoroisobutyryl fluoride under the action of triethylamine was demonstrated. The molecular complex of hexafluoroisobutyryl fluoride with triethylamine (1:1) is the triethylammonium salt of the enol form of the fluoride, and evidently undergoes a rearrangement to the triethylammonium salt of the hypothetical unsaturated perfluoro-beta-methylallyl alcohol. The latter dimerizes upon further heating, yielding a salt of a bis-perfluorocarinol, which loses difluorophosgene and is converted to a mixture of triethylamine fluoride and the triethylammonium salt of perfluoro-(4-methyl-1,3-pentadiene-4 carbinol). The properties and reactivity of the dimer and a number of derivatives of alpha, beta-unsaturated gamma-hydroperfluorinated acids obtained from it were investigated. Alkylation of hexafluoroisobutyryl fluoride by allyl bromide and benzyl chloride proceeds readily in the presence of triethylamine; alkylation does not occur with methylene iodide, 1, 2-diiodoethane, or iodo-benzene. Orig. art. has: 4 figures and 13 formulas. [JPRS? 37,023]

TOPIC TAGS: fluorinated organic compound, triethylamine, alkylation
SUB CODE: 07 / SUBM DATE: 02Feb66 / ORIG REF: 008 / OTH REF: 010

Card 1/1 vrb

UDC: 542.951 + 546.16

I 05123 01
ACC NR: AP7000726

SOURCE CODE: UR/0062/66/000/006/1031/1038

KREMLIN, I. L., CHEBURKOV, Ye. A., BARGAMOVA, M. D., FEDIN, E. I., PRYLOVSKI, P. V., Institute of Heteroorganic Compounds, Academy of Sciences USSR (Institut geteroorganicheskikh soedineniy AN SSSR)

"Perfluorodimethylketene, Communication 7. Structure of the Dimer"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (News of the Academy of Sciences USSR, Chemical Series), No 6, 1966, pp 1031-1038

Abstract: Perfluorodimethylketene, in contrast to other known ketenes, forms a linear dimer under the action of triethylamine. The dimer was also produced by two other methods: 1) the reaction of an equimolar mixture of hexafluoroisobutyryl chloride and ethylamine; 2) by the action of triethylamine or cesium fluoride on perfluoromethacrylyl fluoride. In the latter case the reaction mixture was treated with methanol, yielding the methanolysis product of the dimer and also the known methyl ester of hexafluoroisobutyric acid and the methyl ester of alpha-trifluoromethyl-beta, beta-difluoro-beta-methoxypropionic acid. The structure of the dimer of perfluorodimethylketene as the bis-fluoride of perfluoro-(alpha, alpha, gamma-trimethylglutaconic) acid was confirmed by its reactions and infrared spectrum. The reaction mechanism proposed for the dimerization includes isomerization of the ketene to the more stable perfluoromethacrylyl fluoride. A new reaction was discovered: linear dimerization of functional derivatives of perfluoromethacrylic and difluoromethylenemalononic acids. Orig. art.

has: 1 figure, 9 formulas and 2 tables. [JPRS: 37,023]

ORIG TAGS: fluorinated organic compound, isomerization

card 1/1 vmt / SUBM DATE: 07Dec65 / ORIG REF: 013 / OTH REF: 002
542.91 + 541.452 + 546.16
0923 1891

WATKINS, D. B.

"The Impact of the Vietnam War on the American Economy: A Study of the
Economic Conditions of the United States from 1964 to 1975."
(Dissertation for the degree of Doctor of Philosophy)

Ph. D. Dissertation, University of California, Los Angeles

BLAWAT, Franciszek; KWIATKOWSKI, Bartlomiej; BARGANSKA, Brygida

Electron microscopic examination of lesions on chick-embryo
chorio-allantoic membranes inoculated with poxvirus. Bull.
inst. mar. med. Gdansk 16 no.1:21-25 '65.

1. From the Institute of Marine Medicine in Gdansk.

BARGAR, M.; HASIP, A.

Contribution to pharmacodynamics of tetraethylammonium bromide. p. 81.

ACTA FACULTATIS PHARMACEUTICAE BRUNENSIS ET BRATISLAVENSIS. Brno, Czechoslovakia.
Vol. 1, 1958.

Monthly list of East European Accessions (EEAI) LC, Vol. 9; no. 1, January 1960.

Uncl.

Country : CZECHOSLOVAKIA

V

Category: Pharmacology. Toxicology Ganglionic Blocking Agents

Abs Jour: RZhBiol., No 6, 1959, No 27764

Author : Bargar, M.; Masik, A.; Chadim, P.; Gabureva, M.

Inst : -

Title : The Effect of Calcium on Ganglionic Blocking Induced
by Tetraethylammonium Bromide.

Orig Pub: Bratisl. lekar. listy, 1958, 2, No 3, 144-150

Abstract: It was demonstrated in experiments on a superior
cervical ganglion with application of preganglionic
electrical stimulation that calcium chloride prevents
or removes the blocking of ganglia conditioned by
tetraethylammonium bromide. - From the authors' resume

Card : 1/1

BARGAR, M.; HASIK, A.

Possibility of utilization of mucin in depot preparations. Cesk. fysiол.
7 no.5:427-428 Sept 58.

1. Farmakologicky ustav FUK, Bratislava.

(MUCIN,

in depot drugs (Cz))

(DRUGS,

depot prep. mucin base (Cz))

CZECHOSLOVAKIA/Chemical Technology. Chemical
Products and Their Applications.
Pesticides.

H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24604

Author : Hasik, A., Bargar, M.

Inst : -

Title : Pharmacodynamical Action of "Dipterex".

Orig Pub : Biologia, 1958, 13, No 6, 428-439

Abstract : Pharmacodynamical action of "dipterex" (I) was investigated. The drug possesses a strong but short-lasting anticholine-esterase activity, muscarinic action (MA) and nicotinic action (NA), and also counteracts curare. I does not affect the ability of the transverse muscles to contract. Atropine exhibits

Card : 1/2

CZECHOSLOVAKIA/Chemical Technology. Chemical
Products and Their Applications.
Pesticides.

H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24604

antagonistic effects on MA and has no effect
on NA of I. -- I. Mil'shteyn

Card : 2/2

H-101

COUNTRY : CZECHOSLOVAKIA
 ORIGIN : Chemie 3 Technology, Medical Products and Their
 Applications, Pharmaceutical Is. Vitamins, Anticancer
 ABS. NO. : RUMBERG, No 12, 1959, No. 48756
 AUTHOR : Horner, M.; Vesik, A.; Starkova, A.; Sestakova, A.
 INSTITUTE : -
 TITLE : Application Possibilities of Lucin Derived from
 Flax-Seed in Certified Medicines.
 ORIG. REL. : Pracele (CSR), 1959, 17, No 12, 261-265

ABSTRACT : as a result of experiments performed on animals
 it is demonstrated that increased of lucin, derived
 from flax-seed, lessens considerably the effect
 of insulin. Employment of the pentathionium in
 suspensions with hydrocol of lucin, increases its
 action as well. The action of lucin on blood
 pressure and on the digestive organs and also
 toxicity of the pentathionium in this remains
 unchanged. The bibliography covers 11 titles.
 --b, Vahsk

Card: 1/1

L 30974-66

ACC NR: AP6006029

SOURCE CODE: CZ/0053/65/014/004/0287/0288

AUTHOR: Bargar, M.; Mikovcikova, O.; Subrtova, M.

ORG: Department of Pharmacodynamics and Toxicology, Faculty of Pharmacy, Comenius University, Bratislava (Katedra farmakodynamiky a toxikologie Farmaceutickej fak. UK)

TITLE: Mechanism of action of cyclomethon [This paper was presented during the Twelfth Pharmacologic Days, Smolenice, 28 Jan 65.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 287-288

TOPIC TAGS: experiment animal, rat, drug effect, myology, potassium

ABSTRACT: Study of mode of action of succinylcholine and cyclomethon, both muscle relaxants, in eviscerated cats, rat diaphragm in vitro and isolated rat phrenicodiaphragmatic preparation. Role of potassium was key; drug molecules can be tailored to select depolarizing or competitive mode of muscle relaxant activity. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 003

Card 1/1 *sla*

Bargauanu, M.

TECHNOLOGY

Periodical STUDII SI CERCETARI DE INERGETICA Vol. 8, No. 3, 1958

Bargauanu, M.; A constant for projecting selsyn generators and motors, p. 443.

Monthly List of East European Accessions (EMEAIO) LC. Vol. 8, No. 5, 2
May 1959, Unclass.

March

BALA, C., ing. (Bucuresti); BARGAUAU, M., ing. (Bucuresti)

A direct experimental method of determining the mechanical characteristics of electric motors. Electrotehnica 10 no.12: 437-440 D 1962.

1. Șef de laborator la Institutul de energetica (for Bala).
2. Cercetator principal la Institutul de energetica (for Barga-
anu).

16.6500

S/044/60/000/002/007/009
C111/C222

AUTHOR: Barger, A.L.

TITLE: An exceptional case of the solution of symmetric equations

PERIODICAL: Referativnyy zhurnal. Matematika, no. 2, 1960, 207,
abstract 2334. (Tr. Novosib. in-ta inzh. geod., aerofotos"yemki
i kartogr., 1958, 11, 109-113)

TEXT: The author proposes a "zigzag-shaped" elimination of the
unknowns for the solution of systems of symmetric (in the special case
normal) equations containing quadratic coefficients transformed according
to the method of least squares, which are little different from zero (the
author calls them "zero" coefficients.) It is assumed that in none of
the equations transformed according to Gauss the first and the last
quadratic coefficient are simultaneously "zero" coefficients. An example
is given. /B

[Abstracter's note : Complete translation.]

Card 1/1

BARGER, A.L.

Calculation of loads when lifting signal masts using M.M.
Vdovin's technique. Geod. i kart. no.234-38 F '64.
(MIRA 17:3)

RUMANIA

NESTORESCU, N., Prof. Dr., Member Correspondent of the Academy of Socialist Republic of Rumania (membru corespondent al Academiei Republicii Socialiste Romania); BARGER, Cella; POPOVICI, Marcella, POPESCU, Al., Colonel, Medical Corps; and GEORGESCU, Colette.

"Experimental Studies on Immunogenesis with Extracts of *Vibrio cholerae* in Producing Diagnostic Sera. Part 1: Studies on the Qualities of the Phenol Extracted Antigens"

Bucharest, Revista Sanitara Militara, Vol 16, Special No., 1965; pp 288-289

Abstract: Description of procedure to obtain the phenol extract of potentially diagnostic antigen, a polysaccharide from *Vibrio cholerae* strains 16147 Inaba and 16152 Ogawa, with uncertain or relatively unreliable results.

BARCEL, G.C.

Having received report. No. 4407. 17:00

(11:17:17)

BARGER, I. B.

"Self-Excitation of a Flexible Shaft," Trudy Len. politekh. inst., No.3, 1947

84152

13.2530 178100
9.6180

S/112/59/000/013/039/067
A002/A001

Translation from: Referativnyy zhurnal, Elektrotehnika, 1959, No. 13, pp. 141-142, # 27227

AUTHOR: Barger, I. B.

TITLE: A Strain Accelerometer of Increased Sensitivity

PERIODICAL: Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t. 1957, No. 12, pp. 28-32

TEXT: The author presents the principal design diagram of an accelerometer pickup with a transducer in the form of a strain-sensitive wire which is not glued. The wire is the elastic element of the pickup on which the inert mass of the instrument is suspended. A reciprocal motion of the inert mass is provided by thin beryllium bronze plates. A breaking of the strain-sensitive suspension during overloads is prevented by a limiter of the inert mass motion. The relaxation of the pickup is achieved by filling it with silicone oil. A calculation method and formulae for determining the pickup parameters according to required technical specifications are given. V. A. R.

Translator's note: This is the full translation of the original Russian abstract. Card 1/1

BARGER, I.B.; MAL'TSEV, B.I.

Inductive vibration pickup of lower frequency. Nauch.tekh.
inform.biul. IPI no.12:3-8 '58. (MIRA 13:2)
(Seismometers)

BARGER, I.B.; PROKOPOV, V.K.

Balancing of flexible shafts. Trudy LPI no.210:97-103 '60.

(MIRA 13:11)

(Balancing of machinery)

BARGER, M.

Studying innovators' work practices. Mast. ugl. 4 no.2:13 F '55.
(MLPA 8:6)

1. Nachal'nik otdela rabochikh kadrov kombinata Voroshilovgradugol'.
(Donets Basin--Coal mines and mining)

JARON, M. HANK. A

"Contribution to the pharmacodynamics of the insoluble Nitroex."

BIMOGIA, Bratislava, Czechoslovakia, Vol. 13, no. 6, 1958

Monthly List of East Europe Accessions (EELI), 10, Vol. 1, No. 6, Sept 58
Inches

BARGIEL, A.

X Adding magnesium for production of nodular iron without use of crucibles. A. BARGIEL (*Pract. Metall.*, 1953, 3, 301-302).—A method of alloying ~~iron with ferrosilicon~~ using the available heat of cupola slag for melting is described. Finely ground ferrosilicon and Mg are placed in a steel tube 120-180 mm. in diameter with 4-8 mm. wall thickness. The tube walls are coated with fireclay (2-3 mm. thick) to prevent adherence of the alloy. After closing the ends of the charged tube with moulding sand it is placed in the slag trench or ladle into which slag from a cupola is poured. After the slag has cooled the tube is removed and the alloy is easily knocked out. Instead of tubes, a specially made iron vessel with a cover can be used. The method is successfully operated in several foundries with a saving of crucibles and fuel, and practically no loss of Mg occurs during alloying. J. IRON STEEL INST. (R.B.C.).

BARGIEL, ANTONI

POL.

Use of an idle cupola shaft for exhausting magnesium fumes developing during the production of spheroidal cast iron. Antoni Bargiel, *Pracznia Odlewnicza* 4, 255-7 (1954). ~~When the iron is poured into the ladle, the white fumes (and blinding light) which are removed from the covered tub through an exhaust pipe and a cupola shaft. The cover is made of sheet iron, sealed to the tub with clay. Liquid cast iron is first desulfurized (approx. 50%) by the addn. of Na_2CO_3 0.6 and broken carbide 0.2% in an open ladle and then poured into another ladle containing broken electron alloy (Mg) and placed in the above tub. The cover is then removed, 1% of ferrosilicon (contg. 76% Si) added, and iron castings are produced.~~

Frank J. Hendel

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and the second are the same as the first and second of the first.

2. The third is the same as the first and second of the first and second of the first.

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BARGIEL, Eugeniusz, mgr., inż.

Technical progress in the Polish shipbuilding industry. Bud okretowe
Warszawa 6 no.8:233-235 '61.

1. Zjednoczenie Przemyslu Okretowego, Warszawa.

(Poland---Ships)

BARGIEL, Miroslaw

Automatic sectional switching off of the carrier line as
protection from electric shock by underground traction.
Wiadom gorn 11 no. 4:134-137 Ap '60.